

**40365 Braithwaite, LA
Stolthaven Terminal Facility
Summary of Community Air Monitoring and Sampling Results
September 28, 2012
PO# 12-H0408-MR**

This data report discusses community real-time air monitoring data collected between September 27th 00:00 and September 27th 23:59 in support of mitigation and remediation operations conducted near Stolthaven’s facility near Braithwaite, LA.

Community real-time air monitoring was conducted for VOCs, LEL, hydrogen sulfide (H₂S) and formic acid using stationary AreaRAEs and/or hand-held instruments such as the MultiRAE and colorimetric detector tubes. While real-time monitoring for hydrogen sulfide (H₂S) began on September 15th, 2012; this analyte is unrelated to events at the Stolthaven facility and has been incorporated into real-time community monitoring to evaluate potential H₂S generated by the natural decomposition of organic matter. Table 1 and Table 2 below display data summaries for AreaRAEs and hand-held instrument data, respectively. While stationary AreaRAE results indicate detections of VOCs at eight AreaRAE Units, these results are preliminary and may include drift in the instrument’s electrochemical sensor. Reports indicate confirmed drift at AreaRAE Unit 2 by CTEH[®] employee. AreaRAE Unit 12 recorded an instantaneous reading of 97.6 ppm; battery change and recalibration of unit were performed by CTEH[®] employee. Additionally, these AreaRAE instruments are located adjacent to roads and are subject to detecting products of combustion due to vehicular emissions. No VOCs, H₂S, formic acid, or LEL detections were observed within the community using real-time handheld or colorimetric tubes. Table 3 highlights analytical sample counts collected within air, residential soil, offsite soil, and offsite surface water. Appendix 1 shows incident site maps.

**Table 1
AreaRAE Summary – September 27th 00:00 – 23:59**

Unit	Analyte	Number of Readings	Number Of Detections	Concentration Range
Unit 1	VOC	4726	273	0.1 - 0.3 ppm
Unit 2	VOC	4682	1017	0.1 - 49.2 ppm
Unit 3	VOC	4961	92	0.1 - 9.7 ppm
Unit 4	VOC	4968	387	0.1 - 3.1 ppm
Unit 10	VOC	4634	5	0.1 - 0.2 ppm
Unit 11	VOC	4739	17	0.1 - 2.5 ppm
Unit 12	VOC	4713	318	0.1 - 97.6 ppm
Unit 13	VOC	4969	24	0.1 - 1 ppm

***Detections may include drift events** - Drift is defined as any interference in the electrochemical sensor’s ability to accurately report the concentration of a chemical in the atmosphere. Humidity and temperature changes throughout the monitoring period are typical sources of drift.

**Table 2
Hand-held Real-time Summary – September 27th 00:00 – 23:59**

Community				
Analyte	Number of Readings	Number of Detections	Average Concentration of Detections	Highest Concentration
Formic Acid	3	0	NA	< 0.52 ppm
H ₂ S**	238	0	NA	< 1.0 ppm
LEL	238	0	NA	< 1.0 %
VOC	239	0	NA	< 0.1 ppm

NA = not applicable

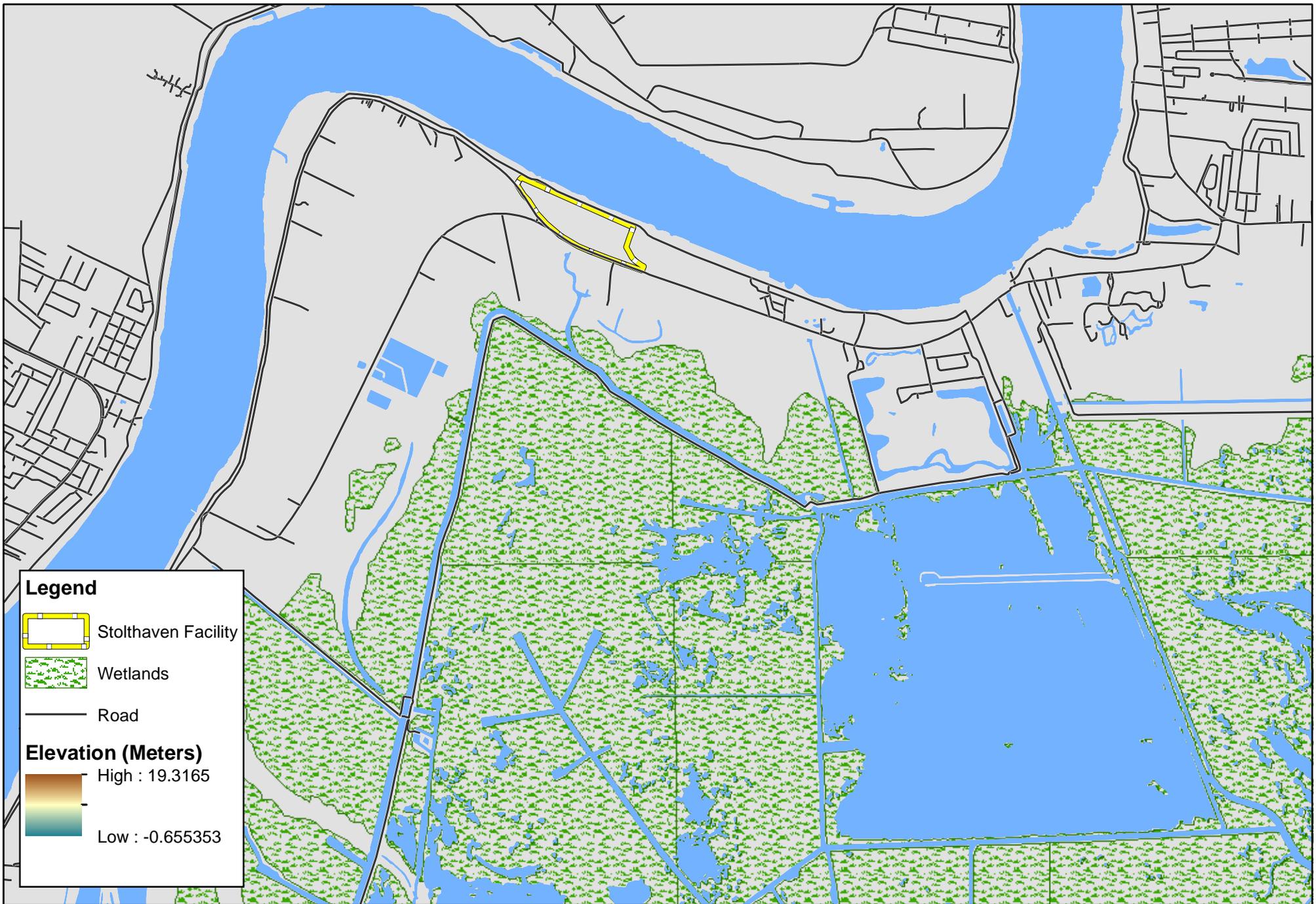
* In addition to the tabulated real-time data, additional air monitoring for the purpose of worker protection was performed throughout the work area. These data are used for task-specific decision-making, but may not be recorded in the tabulated data represented above.

** H₂S is a natural product of organic matter decomposition and is unrelated to events at the Stolthaven Facility

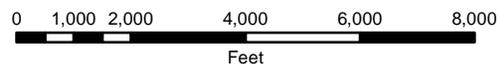
**Table 3
Analytical Sample Counts – September 27th 00:00 – 23:59**

Matrix	Number of Samples
Air	44
Residential Soil	25
Soil	3

Appendix 1: Incident Maps

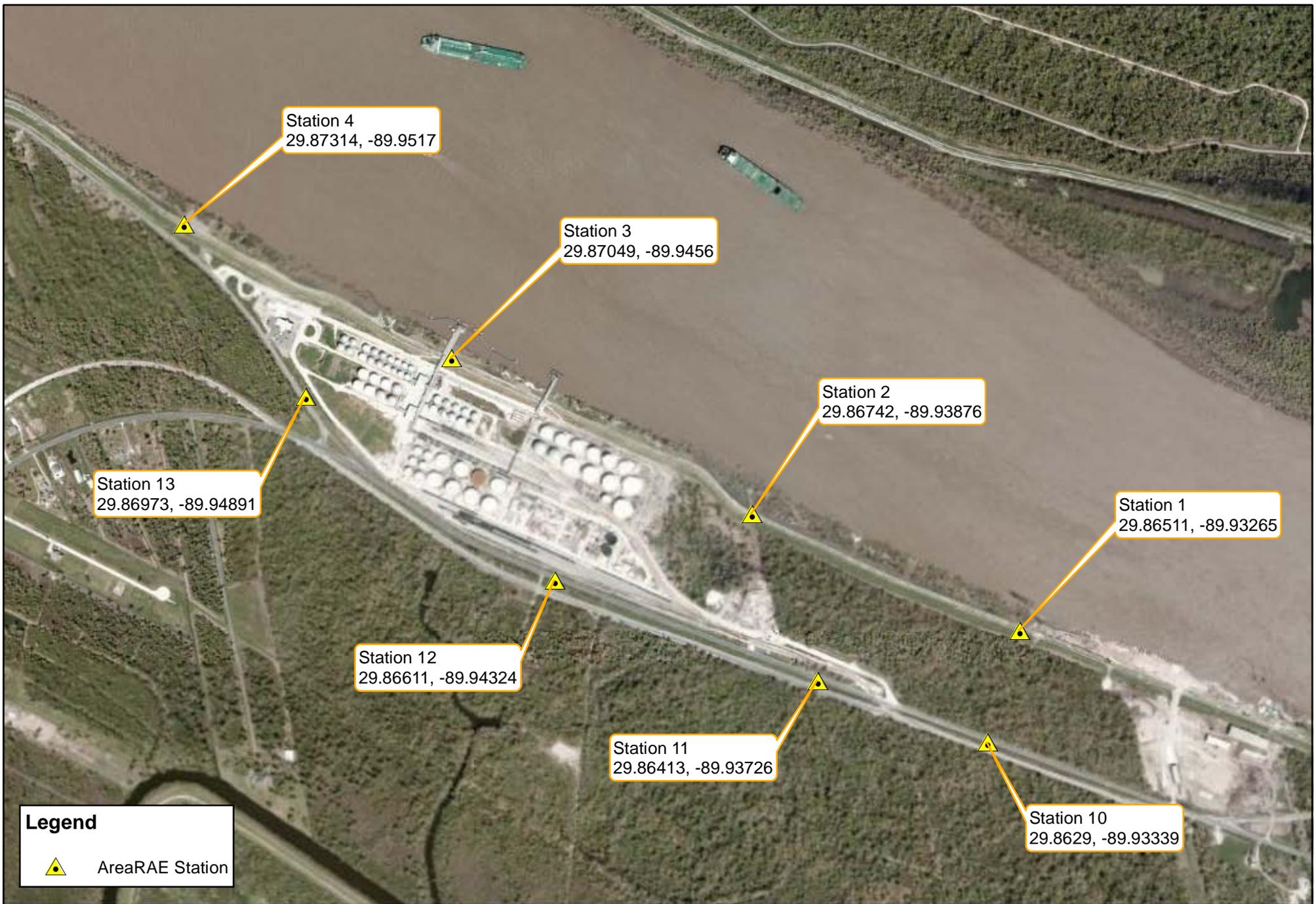


**Stolthaven Facility
Shaded Relief of Elevation**

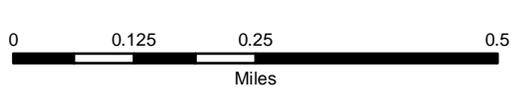


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**Stolthaven
Braithwaite, LA**
Plaquemines Parish
Print Date: 9/28/2012

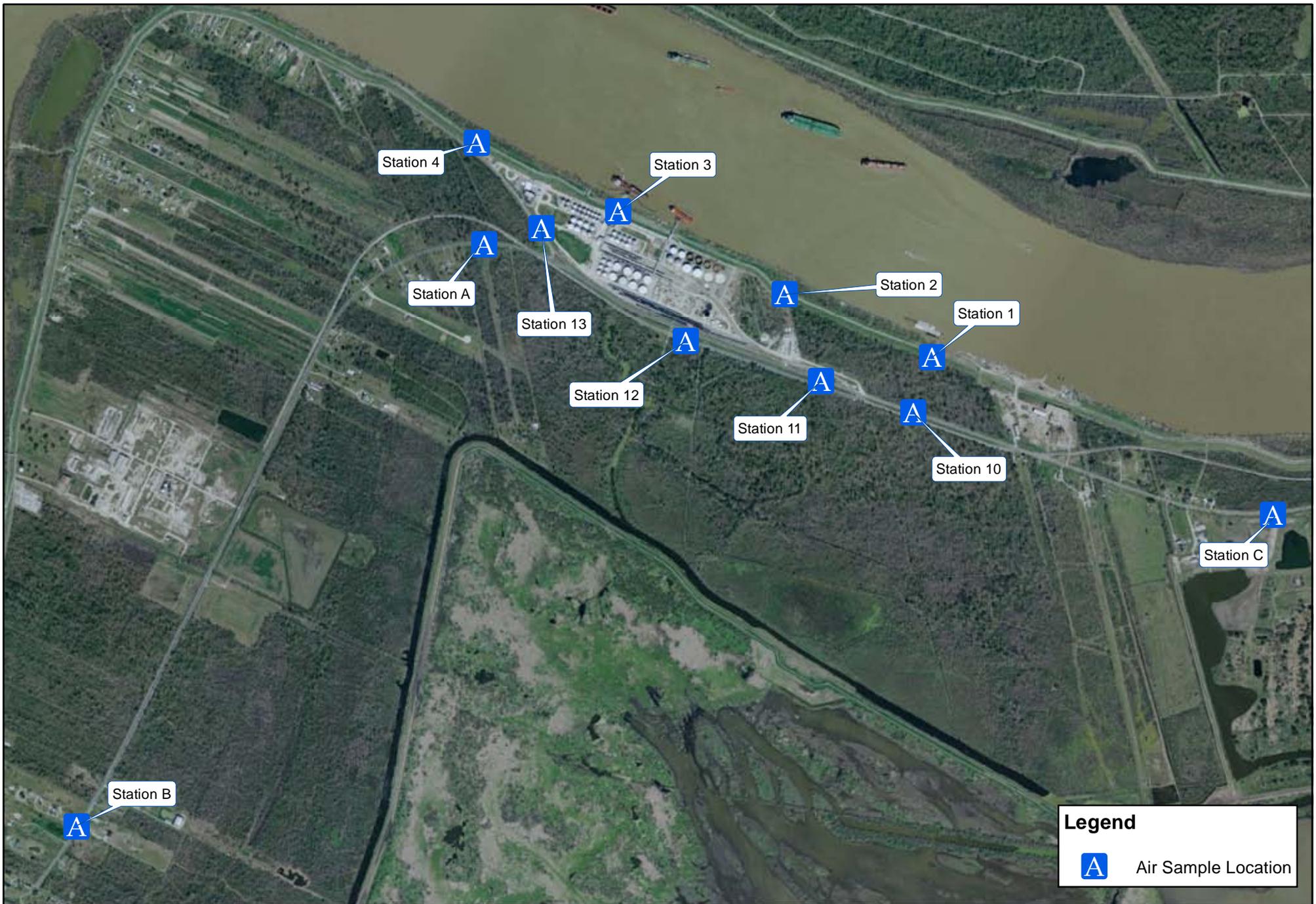


**Community
AreaRAE Station Locations**
September 21, 2012



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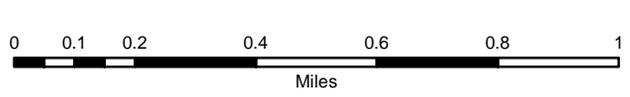
**Stolthaven
Braithwaite, LA
Plaquemines Parish
Print Date: 9/26/2012**



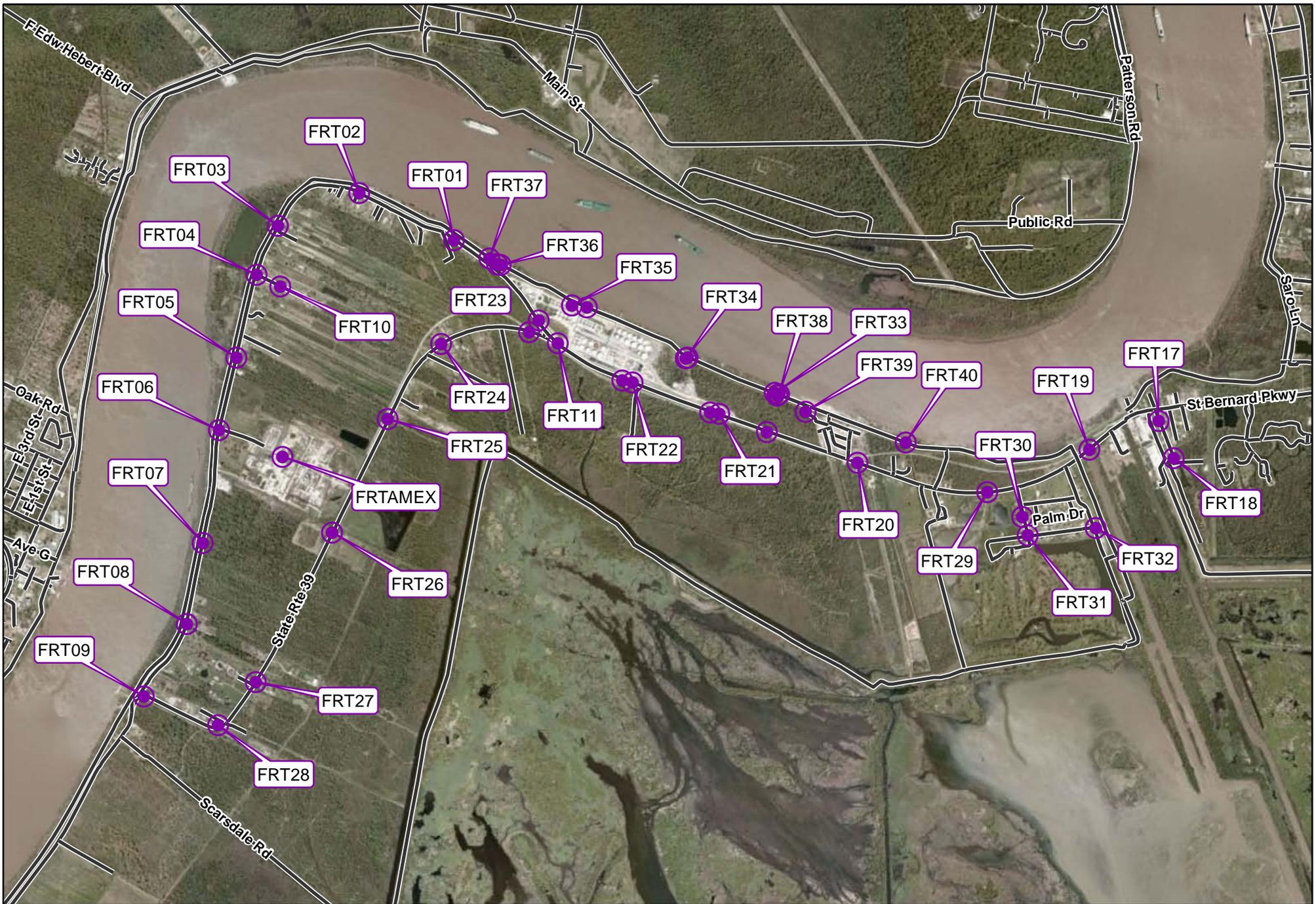
Legend

 Air Sample Location

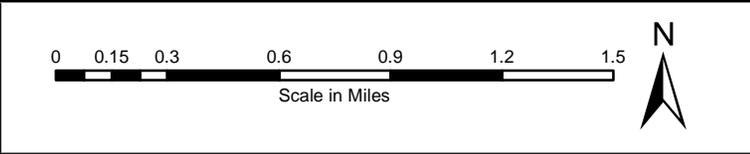
**Ambient Air
Analytical Sampling Locations**



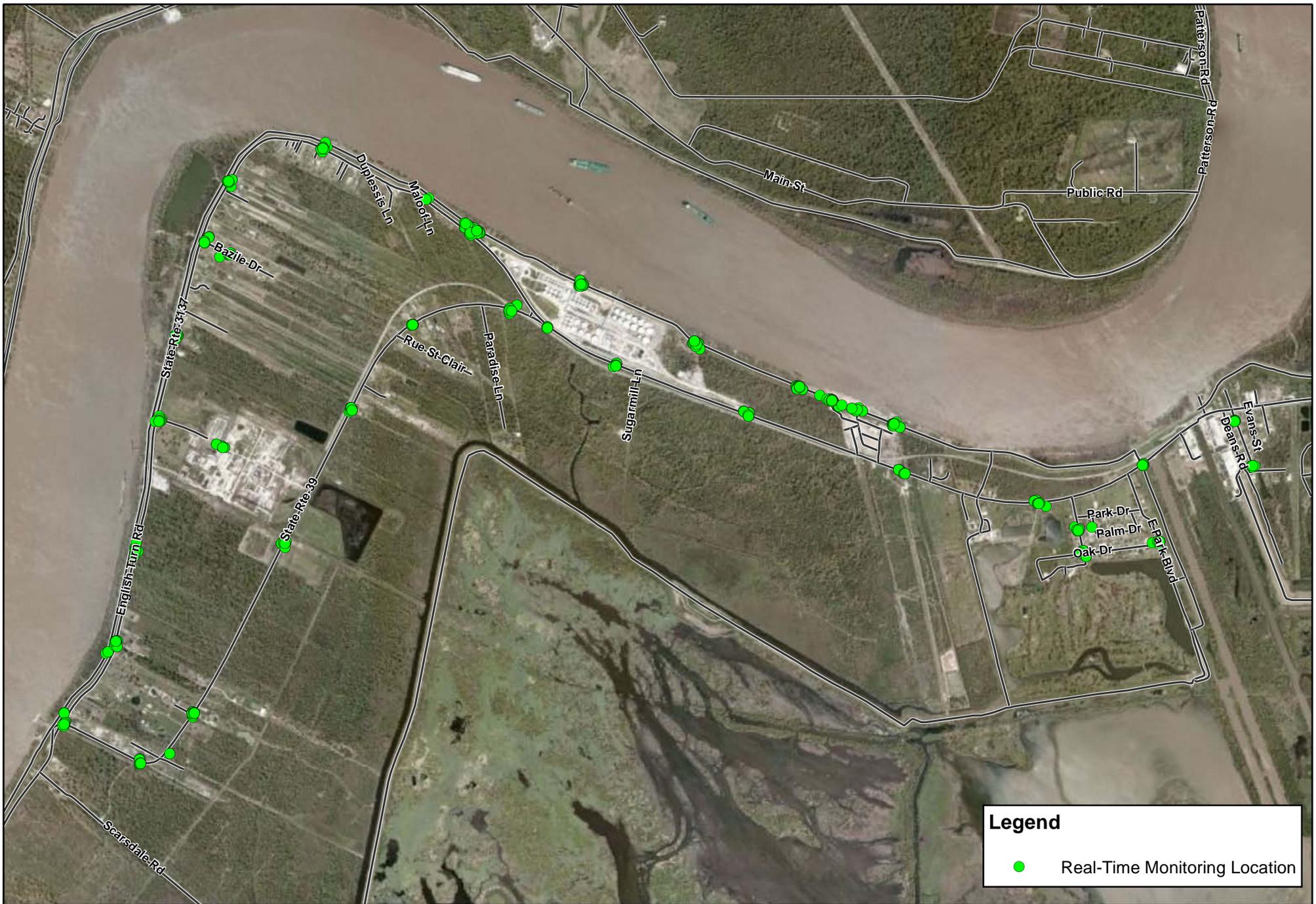
	Stolthaven
	Braithwaite, LA
Project No. 40365	Plaquemines Parish
	Print Date: 9/28/2012



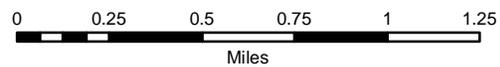
Community Fixed Real-Time Monitoring Locations



	Stolthaven
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Community Real-Time Monitoring Locations
9/27/2012



Legend

- Real-Time Monitoring Location

 Project No. 40365	Stolthaven Braithwaite, LA
	Plaquemines Parish Print Date: 9/28/2012

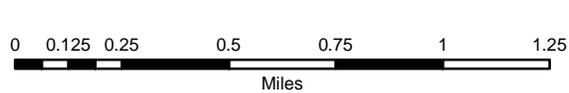


Legend

VOC Concentration

- <0.1 ppm
- 0.1 - 2 ppm
- 3 - 10 ppm
- 11 - 40 ppm
- >40 ppm

**Manually-Logged
Community VOC Concentrations**
9/27/2012



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